AMENDMENTS TO THE CLAIMS

1. (Currently amended) A battery comprising two vessels connected to each other with a member interposed therebetween and filled with electrolytic solutions, the member being configured to permit passage of an ion,

first active material particles, which include granulated particles obtained by adding a granulation agent to a mixture of a first low electron-conductive material and a first high electron-conductive material and granulating the mixture, ~~a high electron-conductive material and/or have a coating of a high electron-conductive material on the surface,~~ filled in the electrolytic solution to form a fixed layer in a static state wherein the fixed layer is closely packed so as to form a close assembly and have the mixture disposed between the granulated particle gaps to increase a density of the first active material particles within one of the vessels and adapted to discharge the electrons, and

second active material particles which include ~~a high electron-conductive material and/or have a coating of a high electron-conductive material on the surface~~ granulated particles obtained by adding a granulation agent to a mixture of a second low electron-conductive material and a second high electron-conductive material and granulating the mixture, filled in the electrolytic solution to form a fixed layer in a static state wherein the fixed layer is closely packed so as to form a close assembly and have the mixture disposed in granulated particle gaps to increase a density of the second active material particles within the other vessel and adapted to absorb the electrons,

wherein electrically conductive current collectors are provided in contact with the active material particles within the two vessels[~~, and the fixed layer is characterized in that the active material particles are in contact with adjacent active material particles such that electrons move to the current collector even when the electrons discharged within the active material particles are distant from the current collector~~.

2. (Previously presented) The battery according to Claim 1, wherein the active materials particles comprise a porous body A battery comprising vessels filled with electrolytic solutions; a porous body that contains active material particles formed as a fixed layer in the electrolytic solution and adapted to discharge electrons; a porous body that contains active material particles formed as a fixed layer in the electrolytic solution and adapted to absorb the electrons; and electrically conductive current collectors connected to the porous bodies in contact with the active material particles.

3. (Canceled).

4. (Previously presented) The battery according to Claim 1, wherein the current collectors in contact with the active material particles have a shape of any one of a rod, a plate, and a pipe.

5. (Previously presented) The battery according to Claim 1 wherein a heat transfer surface is installed within the vessels to keep a reaction temperature within the battery constant.

6. (Original) The battery according to Claim 5, wherein the heat transfer surface is either a pipe-shaped current collector or a plate-shaped current collector which is in contact with the active material particles.

7. (Previously presented) The battery according to Claim 1, wherein a discharge means for discharging the degraded active material particles from the vessel and a feed means for feeding the active material particles to the vessel are respectively connected to the vessels.

8. (Original) The battery according to Claim 7, wherein at least one of a recovery means for recovering the discharged active material particles and a makeup means for making up the active material particles is connected to the discharge means to allow recovered or newly replaced active material particles to be fed from the feed means to inside of the vessels.

9. (Previously presented) The battery according to Claim 7, wherein a reaction means that converts the discharged active material particles into charged active material particles through a thermal chemical reaction or an electrochemical reaction is connected to the discharge means to allow the charged active material particles to be fed from the feed means to inside of the vessels.

10. (Previously presented) The battery according to Claim 1, wherein active material particles on an anode side are hydrogen-occluding alloy particles and active material particles on a cathode side are nickel hydroxide particles.

11. (Previously presented) The battery according to Claim 1, wherein active material particles on an anode side are hydrogen-occluding alloy particles, a gas injected to the anode side is hydrogen, active material particles on a cathode side are nickel hydroxide particles, and a gas injected to the cathode side is oxygen or air.

12. (Currently amended) A layered three-dimensional battery comprising plural sets of unit batteries, each of which is formed by filling an electrolytic solution in one of a pair of cells and putting a first active material particles which include a first high electron-conductive material and/or have a coating of a second high electron-conductive material on the surface, adapted to discharge electrons into the electrolytic solution to form a fixed layer,

and by filling an electrolytic solution in the other cell and putting active material particles which include [[a]]the first high electron-conductive material and/or have a coating of [[a]]the second high electron-conductive material on the surface, adapted to absorb the electrons into the electrolytic solution to form a fixed layer,

the pair of cells being connected to each other with a member interposed therebetween, the member being configured to permit passage of an ion and not to permit passage of the electron, electrically conductive current collecting members provided in contact with the first and/or the second active material particles and configured to serve as separating walls that define the cells, the unit batteries being connected in series to one another with each of the electrically conductive current collecting members interposed between the unit batteries, and current collectors provided on the cells at both ends of the unit batteries in contact with the first and/or the second active material particles so as to serve as a cathode electrode and an anode electrode, respectively,

wherein the fixed layer is characterized by a layer formed by filling the first and/or the second ~~in that the~~ active material particles in a static state wherein the fixed layer is closely packed so as to form a close assembly and have essentially no gaps between the first and/or the second ~~are in contact with adjacent~~ active material particles which constitute the fixed layer ~~such that electrons move to the current collector even when the electrons discharged within the active material particles are distant from the current collector~~.

13. (Currently amended) A layered three-dimensional battery comprising plural sets of unit batteries, each of which is filled with electrolytic solutions within cells and includes a porous body that contains a first active material particles which include a first high electron-conductive material and/or have a coating of a second high electron-conductive material on the surface, that form a fixed layer and discharge electrons in the electrolytic solution,

and a porous body that contains a second active material particles which include [[a]]the first high electron-conductive material and/or have a coating of [[a]]the second high electron-conductive material on the surface, that form a fixed layer and absorb the electrons in the electrolytic solution,

electrically conductive current collecting members provided in contact with the first and/or the second active material particles and configured to serve as separating walls that define the cells, the plurality of unit batteries being connected in series to one another with each of the electrically conductive current collecting members interposed between the unit batteries; and current collectors provided on the cells at both ends of the unit batteries in contact with the first and/or the second active material particles so as to serve as a cathode electrode and an anode electrode, respectively,

wherein the fixed layer is characterized by a layer formed by filling the first and/or the second ~~in that the~~ active material particles in a static state wherein the fixed layer is closely packed so as to form a close assembly and have essentially no gaps between the first and/or the second ~~are in contact with adjacent~~ active material particles which constitute the fixed layer ~~such that electrons move to the current collector even when the electrons discharged within the active material particles are distant from the current collector~~.

14. (Canceled).

15. (Previously presented) The battery according to Claim 12, wherein an electrically conductive stud is provided integrally and protrusively from the current collecting member or the current collector toward an inside of the cell.

16. (Previously presented) The battery according to claim 2, wherein a heat transfer surface is installed within the vessels to keep a reaction temperature within the battery constant.

17. (Previously presented) The battery according to Claim 2, wherein a discharge means for discharging the degraded active material particles from the vessel and a feed means for feeding the active material particles to the vessel are respectively connected to the vessels.

18. (Previously presented) The battery according to claim 2, wherein active material particles on an anode side are hydrogen-occluding alloy particles and active material particles on a cathode side are nickel hydroxide particles.

19. (Previously presented) The battery according to claim 2, wherein active material particles on an anode side are hydrogen-occluding alloy particles, a gas injected to the anode side is hydrogen, active material particles on a cathode side are nickel hydroxide particles, and a gas injected to the cathode side is oxygen or air.